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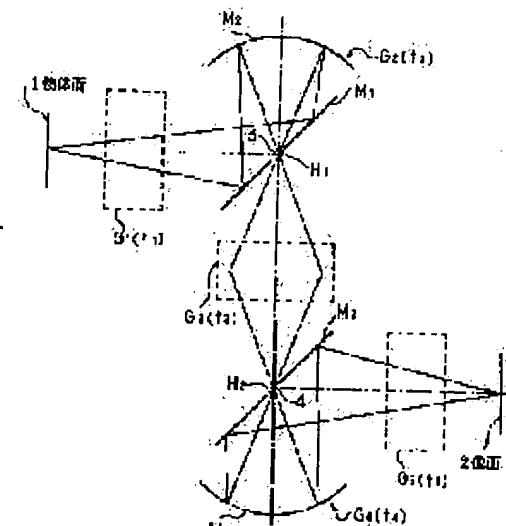
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## (54) REFLECTION/REFRACTION/PROJECTION OPTICAL SYSTEM

### (57)Abstract:

PURPOSE: To provide a reflection/refraction/projection optical system with superior image-forming performance without using a beam splitter and capable of employing a batch exposure system.

CONSTITUTION: Light from a pattern on an object surface 1, after being reflected on the peripheral part of a first plane mirror M1 via a first convergence group G1, arrives at a second convergence group G2 consisting of a first concave reflecting mirror M2, and light reflected on the second convergence group G2 image-forms the intermediate image of the pattern in the aperture of the first plane mirror M1. Light from the first intermediate image image-forms the second intermediate image of the pattern in the aperture of a second plane mirror M3, and light from the second intermediate image arrives at a fourth convergence group G4 consisting of a second concave plane reflecting mirror M4, and light reflected on the fourth convergence group G4 is reflected in the periphery of the second plane mirror M3, and reflected light image-forms the third intermediate image of the pattern on the surface of an image surface 2 via a fifth convergence group G5.




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